

## **REMARKS**

Claims 1-15 are pending in the application.

Claims 1-7 have been rejected.

Claims 8 – 15 had been withdrawn from consideration as being drawn to a non-elected invention.

Claim 1 has been amended for purpose of reconsideration.

No new matter has been added.

Reconsideration of the Claims is respectfully requested.

The Applicant hereby rescinds any disclaimer of claim scope made in the sister application or any predecessor application in relation to the instant application. The Examiner is advised that any such previous disclaimer and the prior art that it was made to avoid, may need to be revisited. Further, the claims in the instant application may be broader than those of a sister application. Moreover, the Examiner should also be advised that any disclaimer made in the instant application should not be read into or against the sister application.

### **1. Election Requirement**

Claims 8 through 15 had been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant will cancel such claims without prejudice upon indication of allowability of the instant claims.

### **2. Rejection under 35 U.S.C. § 102**

Claims 1, 4, 5 and 6 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,497,137 to Fujiki (“Fujiki”).

For establishing anticipation, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. . . . The identical invention must be shown in as complete detail as is contained in the . . . claim.” MPEP 2131 at p. 2100-67 (Rev. 5, August 2006) (citations omitted).

Fujiki relates to a “chip type transformer usable as a balun transformer in an impedance converter for converting the impedance of a transmission line of a high frequency circuit having a frequency higher than that of a UHF band . . . .” (Fujiki Col. 1:8-12). Figure 2 of Fujiki

illustrates a “first strip line 22 of a length  $\lambda/2$  is formed on one main surface of the third dielectric substrate 14c which is the third layer from the top layer of the laminate 12. The first strip line 22 consists of a narrower first spiral portion 24a and a thicker second spiral portion 24b.” (Fujiki Col. 4:18-22). As understood, Fujiki considers signal wavelength reflection as the consideration for the strip line lengths.

The Final Office Action submits that, without indication of angle, purpose, or desired effect, that “the winding of Fujiki includes corners that are shaped exactly the same way as the applicants.” (Final Office Action at p. 5). But again, “[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic.” MPEP § 2112 at p. 2100-51.

*Fujiki is silent to the purpose of the specific design of the spiral portions, but for the length of the spirals corresponding to signal wavelength. (see, e.g., Fujiki 7:44-47 (“the [strip lines] are set to a specific length, respectively.”)). That is, Fujiki does not recite a method for manufacturing an on-chip inductor that includes geometric shaping of corners to achieve impedance reduction at an operating frequency while having negligible effects on inductance.*

In contrast, Applicant’s Independent Claim 1, as amended, recites “a method for manufacturing an on-chip inductor comprises: creating a dielectric layer; and creating a conductive winding on the dielectric layer, wherein the conductive winding has a substantially square geometry, wherein corners of the conductive winding *are geometrically shaped to reduce impedance of the on-chip inductor at an operating frequency with negligible effects on inductance of the on-chip inductor.*” (emphasis added).

Accordingly, Applicant respectfully submits that each and every element as set forth in Applicant’s claimed invention is not found in Fujiki. Applicant respectfully requests that the rejection to Independent Claim 1 and Claims 4, 5 and 6 that depend therefrom be withdrawn.

### **3. Rejection under 35 U.S.C. § 103(a)**

Claims 2, 3 and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiki in view of U.S. Patent No. 6,407,647 to Apel et al. (“Apel”).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine

reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142, p. 2100-125 (Rev. 5, August 2006) (citations omitted).

Claims 2, 3, and 7 depend directly or indirectly from Independent Claim 1. Because Fujiki is respectfully submitted as not substantiating a basis for anticipation of Applicant's claimed invention, Applicant further respectfully submits that the hypothetical combination of Fujiki with Apel does not teach or suggest all the claim limitations of these claims.

Apel relates to a transmission line element. (*See, e.g.*, Apel claim 1). Similar to Fujiki, Apel is silent to the purpose of the specific design of the spiral portions, but for the length of the spirals corresponding to signal wavelength. (*see, e.g.*, Apel 3:48-51 ("the dimensions of element 10 are preferably such that each transmission line 12, 14 has an overall length that is less than or approximately equal to one-eighth of the signal wavelength.")).

Applicant further submits that the cited references do not convey the effect or desirability of creating geometric shaping of the corners. *See* MPEP § 2144.05 at p. 2100-134. As explained in the Specification, "the inductance value of an on-chip inductor is dependent on the length of the interior edge of the metallization (that is, the interior edge of winding 12) where the current tends to concentrate." (Specification at p. 5, *ll.* 25-28).

Further, Applicant's Specification further recites that to "improve the quality factor of rectangular on-chip inductors and/or square on-chip inductors, current turbulence within the metal track needs to be reduced. Such turbulence consumes power as resistive loss, but does not contribute to the inductive value. (Specification at p. 6, *ll.* 9-13). Thus, Applicant's claimed invention provides for reducing the resistive loss caused by turbulence while not affecting the inductive value of the device. The Office Action appears to improperly rely on a "likely to invent" criteria in the rejection.

Accordingly, Applicant respectfully submits that there has not been a *prima facie* showing that substantiates the rejection of Applicant's claimed invention. There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Fujiki and Apel to achieve Applicant's claimed invention as set

out in dependent claims 2, 3 and 7. Applicant respectfully requests that the rejection to these claims be withdrawn.

**4. Conclusion**

As a result of the foregoing, the Applicant respectfully submits that Claims 1-7 in the Application are in condition for allowance, and respectfully requests allowance of such Claims.

If any issues arise, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at [ksmith@texaspatents.com](mailto:ksmith@texaspatents.com).

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Garlick Harrison & Markison Deposit Account No. 50-2126.

Respectfully submitted,

Date: **October 9, 2007**

/Kevin L. Smith/  
Kevin L. Smith, Reg. No. 38,620  
Attorney for Applicant

**Garlick Harrison & Markison**  
P.O. Box 160727  
Austin, Texas 78716-0727  
(972) 772-8836/office  
(972) 772-5033/facsimile